Amendments to the Claims

This listing of claims replaces all prior versions, and listings, of claims in the above-identified application:

1-74 (Canceled)

75. (Currently amended) A method for attenuating the expression of a target gene in a vertebrate cell *ex vivo* comprising:

explanting a vertebrate cell from a vertebrate organism;

supplying the cell with [[a]] at least one double stranded RNA in an amount sufficient to specifically attenuate expression of the target gene, wherein one of the strands of the double stranded RNA is capable of hybridizing to the target gene *in vitro* in 400 mM NaCl, 40 mM PIPES ph 6.4, and 1mM EDTA, at 50°C~~, and provided that, when the double stranded RNA is applied to the cell by delivery to the cell of the double stranded RNA, the double stranded RNA is formed from single-stranded RNA that is purified in the absence of phenol or chloroform~~; and

implanting the cell into a vertebrate organism, wherein expression of the target gene is attenuated in the vertebrate cell.

76. (Previously presented) The method of claim 75, wherein the cell is implanted back into the vertebrate organism from which it was explanted.

77. (Canceled)

78. (Currently amended) The method of claim [[1]] 75, wherein the double stranded RNA has a length of less than about 200 bases.

79. (Currently amended) The method of claim [[18]] 75, wherein the double stranded RNA comprises a nucleotide sequence that is complementary to a region of at least about 25 bases of the target gene.

80-81. (Canceled)

82. (New) The method of claim 75, wherein the double stranded RNA is supplied to the cell by delivery to the cell of the double stranded RNA.

83. (New) The method of claim 82, wherein the double stranded RNA is purified in the absence of phenol or chloroform.

84. (New) The method of claim 75, wherein the double stranded RNA is supplied to the cell by delivering to the cell a DNA encoding the double stranded RNA.

85. (New) The method of claim 75, wherein the target gene is an endogenous gene.

86. (New) The method of claim 75, wherein the target gene is a foreign gene.

87. (New) The method of claim 75, wherein the target gene is a chromosomal gene.

88. (New) The method of claim 75, wherein the target gene is an extrachromosomal gene.

89. (New) The method of claim 75, wherein the double stranded RNA is supplied in an amount to completely inhibit expression of the target gene.

90. (New) The method of claim 75, wherein the double stranded RNA comprises a single strand comprising self-complementary portions.

91. (New) The method of claim 75, wherein the double stranded RNA comprises two separate complementary strands.

92. (New) The method of claim 82, wherein the double stranded RNA is treated with RNase prior to delivery to the cell.

93. (New) The method of claim 91, wherein the two strands of the double stranded RNA are annealed in the presence of potassium chloride prior to delivery.

94. (New) The method of claim 75, wherein the function of the target gene is unknown.

95. (New) The method of claim 75, further comprising identifying a phenotypic change in the vertebrate cell associated with attenuated expression of the target gene.

96. (New) The method of claim 75, wherein the target gene is associated with a disease.

97. (New) The method of claim 75, wherein the target gene is associated with a pathogen.

98. (New) The method of claim 96, wherein the pathogen is selected from the group consisting of a virus, bacterium, fungus or protozoan.